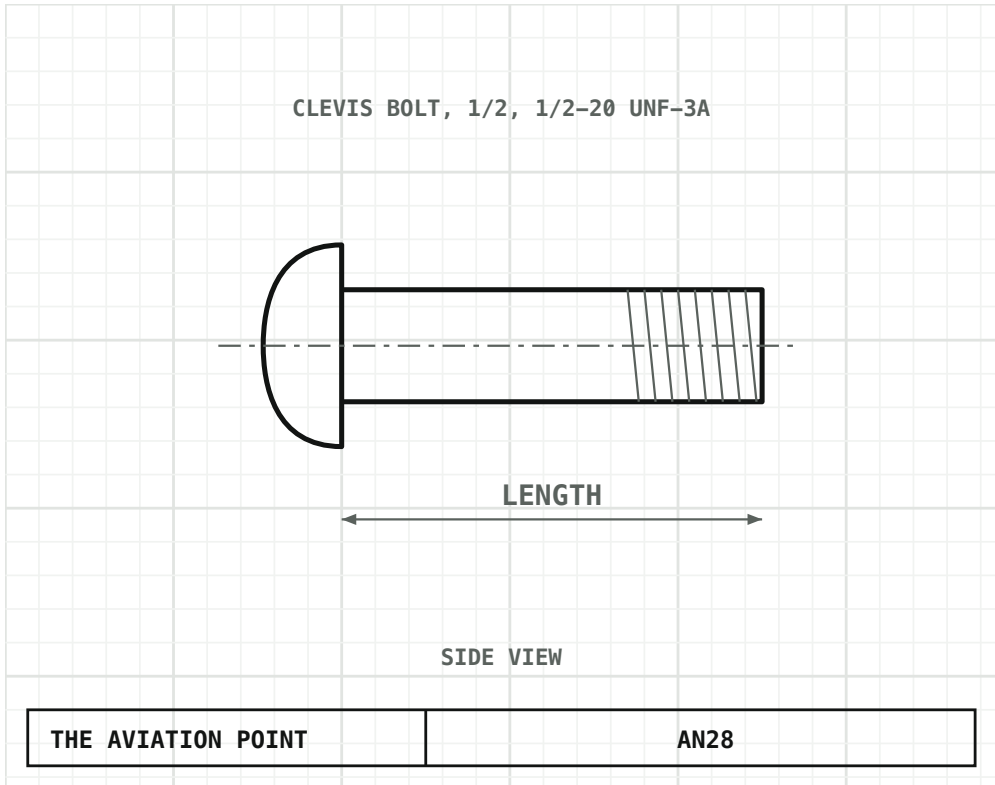
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AN28 — clevis bolt, 1/2, 1/2-20 UNF-3A

AN28: 1/2 clevis bolt with a 1/2-20 UNF-3A thread.



Engineering drawing · dimensions in inches

Specification

Item	Value
Type	Clevis bolt
Material	Non-corrosion-resisting steel, 4130 (UNS G41300) per MIL-S-6758 or 8740 (UNS G87400) per MIL-S-6049
Finish	Cadmium plate, QQ-P-416, Type II, Class 2
Status	Check the current issue before design use. Cancelled by Notice 1 (4 Nov 1999) and superseded by NASM21 thru NASM37; the notice states the part numbers are identical.

Dimensions by size

Dimension, in	1/2-20 UNF-3A
Thread T	1/2-20 UNF-3A
A — A dia (shank), +.000 -.002	.497
B — B dia (head)	7/8
H — H (head height)	1/4
C — C (slot depth)	11/64
D — D (slot width)	7/64
E — E, ref	1/4
J — J drill (cotter pin hole), +.010 -.000	.106
K — K × 45° (end chamfer), +.016	.047
M — M dia, +.005 (Detail A, alternate construction)	.422
P — P (Detail A, alternate construction)	1/16
Rated single shear strength at full dia, lb	14700
Rated tensile strength, lb (with AN320 or AN364 nut)	9250

Dimensions in inches, as tabulated in the standard (letters as on its drawing); strengths in pounds.

Part numbers

1/2-20 UNF-3A 50 part numbers

Part no.	Grip, in	Length, in
AN28-12	3/8	51/64
AN28-13	7/16	55/64
AN28-14	1/2	59/64
AN28-15	9/16	63/64
AN28-16	5/8	1-3/64
AN28-17	11/16	1-7/64
AN28-18	3/4	1-11/64
AN28-19	13/16	1-15/64
AN28-20	7/8	1-19/64
AN28-21	15/16	1-23/64
AN28-22	1	1-27/64
AN28-23	1-1/16	1-31/64
AN28-24	1-1/8	1-35/64
AN28-25	1-3/16	1-39/64
AN28-26	1-1/4	1-43/64
AN28-27	1-5/16	1-47/64

Part no.	Grip, in	Length, in
AN28-28	1-3/8	1-51/64
AN28-29	1-7/16	1-55/64
AN28-30	1-1/2	1-59/64
AN28-31	1-9/16	1-63/64
AN28-32	1-5/8	2-3/64
AN28-34	1-3/4	2-11/64
AN28-36	1-7/8	2-19/64
AN28-38	2	2-27/64
AN28-40	2-1/8	2-35/64
AN28-42	2-1/4	2-43/64
AN28-44	2-3/8	2-51/64
AN28-46	2-1/2	2-59/64
AN28-48	2-5/8	3-3/64
AN28-50	2-3/4	3-11/64
AN28-52	2-7/8	3-19/64
AN28-54	3	3-27/64
AN28-56	3-1/8	3-35/64

Part no.	Grip, in	Length, in
AN28-58	3-1/4	3-43/64
AN28-60	3-3/8	3-51/64
AN28-62	3-1/2	3-59/64
AN28-64	3-5/8	4-3/64
AN28-66	3-3/4	4-11/64
AN28-68	3-7/8	4-19/64
AN28-70	4	4-27/64
AN28-72	4-1/8	4-35/64
AN28-74	4-1/4	4-43/64
AN28-76	4-3/8	4-51/64
AN28-78	4-1/2	4-59/64
AN28-80	4-5/8	5-3/64
AN28-82	4-3/4	5-11/64
AN28-84	4-7/8	5-19/64
AN28-86	5	5-27/64
AN28-88	5-1/8	5-35/64
AN28-90	5-1/4	5-43/64

Reference data. The aircraft manufacturer's documentation (SRM / IPC) takes precedence.

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How to read the part number

Part	Meaning
Format	AN28-<dash>
Example	AN28-12 — Clevis bolt, 1/2-20 UNF-3A, grip 3/8, length 51/64, with cotter pin hole

Notes

- Dash number sets the grip and length. Add A after the dash number for a bolt without the cotter pin hole: AN28-12 has the hole, AN28-12A has none.
- Grip is measured from the underside of the head to the end of the full cylindrical portion of the shank; two imperfect threads max.
- Lengths longer than those tabulated are available in 1/8 in increments by use of significant dash numbers.
- Rated tensile strength applies only when shear nut AN320 or thin nut AN364 is used.
- Cotter pin hole centerline within .010 of the bolt centerline for 5/16 dia bolts and smaller, and within .015 for 3/8 dia bolts and larger; hole normal to the bolt centerline within 2°.
- Thread T per MIL-S-7742, except that the major diameter shall not exceed the maximum allowable shank diameter. Fillet under the head R .005 to .015.
- Head marked with a double X, raised or depressed .010 max; only one X need be visible after slotting. Position of the slot relative to the cotter pin hole is optional.
- Unless otherwise specified: decimals ±.010, fractions ±1/64, angles ±5°. Countersinking of drilled holes is optional.
- Approved data governs. Use the bolt the SRM, drawing or IPC calls for.

SOURCES · AN21 thru AN37 Rev. 11, 22 Mar 1996 — Bolt — Clevis

SCAN · OPEN THIS DATA SHEET
theaviationpoint.com/parts/structural-bolts/an28/

Reference data. The aircraft manufacturer's documentation (SRM / IPC) takes precedence.